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ABSTRACT

ClassMaps is a whole class mental health consultation model that makes the social and emotional elements of classrooms visible so that educators can assess the impact of affective supports they provide. By redirecting school psychologists' visions to the school and class contexts within which students with disabilities are included, ClassMaps fosters the academic success of fully-included students with disabilities without singling them out for pull-aside services. This paper describes the process of validating the model in elementary schools and discusses how collaborative consultation has been employed. The field test involved creating a valid, reliable, and user-friendly downward extension of the model of mental health services for primary level students. The surveys used examined student-teacher relationship, home-work relationship, peer relationships, academic efficacy, and self-determination. Overall, results appear promising. The consultation process involved having consultants participate in a classroom and then rating their observations. Later on, teachers and consultants met so that teachers could ask questions and express concerns about the probes being used in the study. At the end of the project teachers appeared to be moderately satisfied. Directions for the future of ClassMaps are discussed. (MKA)

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ClassMaps: Making mentally healthy classrooms promotes academic success[1]

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Abstract

ClassMaps is a whole class mental health consultation model that makes the social and emotional elements of classrooms 'visible' so that educators can assess the impact of affective supports they provide. By redirecting school psychologists' vision to the school and class contexts within which students with disabilities are included, *ClassMaps* fosters the academic success of fully-included students with disabilities without singling them out for pull aside services. This paper describes the process of validating the model in elementary schools and discusses how collaborative consultation has been employed.

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ClassMaps is a whole class mental health consultation model that makes the social and emotional elements of classrooms 'visible' so that educators can assess the impact of affective supports they provide to students with disabilities. The model is built upon 6-steps:

- Step 1: Collect and analyze brief probes of 6 elements of mentally healthy classrooms;
- Step 2: Assemble this information into a graphic description of the 6 elements, a ClassMap;
- Step 3: Examine the significance of the ClassMap with classroom teachers and students;
- Step 4: Collaboratively plan strategies to alter one or more of the elements in the ClassMap;
- Step 5: Re-collect a ClassMap to assess consequent changes in the 6 affective elements;
- Step 6: Monitor the impact of classroom changes on the success of at-risk students.

These steps duplicate, on a classroom basis, the elements of effective behavior management that have proven successful in individual management programs. Effective management of individual behaviors occurs when expectations are stated clearly and unequivocally as positive behavioral rules, when students are engaged in discussions about the importance and relevance of rules, when students receive specific, accurate and immediate feedback about their success in meeting these expectations, and when consequences for not meeting the expectations are consistent and mild (Sprick & Nolet, 1991). *ClassMaps* applies these same principles to classroom support -- by clearly describing expectations for student support, engaging multidisciplinary teams of educators

in efforts to enhance such supports, providing the teams with dependable feedback about their success in meeting those expectations and establishing consequences for not meeting the expectations that are consistent and mild.

The *ClassMaps* model was developed out of existing research documenting the relationship between the affective and social climates of classrooms, and academic success and satisfaction of students with disabilities. Preliminary evidence of the model's validity in a secondary school has been presented elsewhere (Doll, Zucker & Brehm, 1999a; 1999b) while the *ClassMaps* training materials are summarized in a training manual (Zucker, Doll, Brehm & Griffin, 1999). Briefly stated, early work has shown that, for secondary students with and without disabilities, the *ClassMaps* probes are internally consistent, show modest but significant correlations with the NCEO (1994) indicators of academic success, and separate cleanly into two factors: one representing the *ClassMaps* relationship probes and the second representing the *ClassMaps* self-system probes. This paper describes the process of validating *ClassMaps* in elementary schools within a collaborative consultation model.

Elementary Extension of the ClassMaps *Model*

During April-May of 1999, we began field-testing *ClassMaps* probes at the elementary level. Our goal was to create a valid, reliable and "user-friendly" downward extension of the *ClassMaps* model of mental health services for primary level students. We chose an elementary school at which one of the secondary *ClassMaps* site coordinators had been employed for 15 years. Our attempt was to modify the format, language, and administration process of the 5 validated probes so they would be suitable for elementary-aged students. Also, we wanted to adapt the consultation and intervention processes to suit the developmental level of younger students and the specific needs of this suburban elementary school.

It is our belief that familiarity with the ClassMaps process on the part of general education teachers and special education staff can allow for more direct mental health and special education team involvement in raising academic and social-emotional competence on a building-wide level. ClassMaps provides the structure in which mental health/special education staff can make more meaningful and direct contributions to school and district-wide goals related to academic achievement and the development of self-regulated, socially competent learners.

Our first step in the downward extension process was to match items on each probe for content, while modifying their presentation so that younger children could "read" the items and respond in a meaningful manner. The elementary probes, therefore, utilized simplified language and attractive clip art drawings to assist students in taking the survey. Colorful overheads were also utilized during whole-class administration. Following our first-round administration with the downward extended measures to grades 1st through 5th, we consulted with students from those grades through focus groups, which led to further refinement of the language and presentation of the elementary measures. Additional modifications to all of the measures were then accomplished, with the goal of increasing reliability and validity for grades 3rd through 5th. It became clear that further refinement of the probes themselves and the administration procedures would be necessary to ensure valid results for grades Kindergarten through 2nd. Those adaptations and additional field-testing for these young children are currently underway.

During the Fall and Winter of 1999-2000, we administered the revised elementary probes to grades 3rd through 5th in classes whose teachers were most interested in participating in this process. Since we had routinely been using classroom Sociograms for several years at this building, we utilized the sociogram measure as part of the *ClassMaps* "package", which resulted in the following measures being utilized from September 99 through March 2000:

1) My Teachers. This 7-question survey examines the quality of the relationship between teachers and their students, which is critical to student caring, motivation, and rate of academic growth

2) *Today at Recess*: This 7 question survey assesses the quality of peer relationships, within which students learn to act as independent and competent social agents and master cooperation, competition and intimacy. Students describe the kinds and frequency of problems that occur at recess immediately following their lunch recess.

3) *Talk about School*: This 8 question survey assesses the degree to which students have important conversations with their parents regarding daily school-related occurrences. Such conversations are critical to fostering student motivation and success in academic and other school-related matters.

4) *Things I Believe*: This 6 question survey assesses academic self-efficacy, or the amount of confidence that a student has that he/she will succeed in specific subject areas.

5) *Things I Do*: This 5 question survey assesses academic self-determination, or the students' goals and plans for academic achievement.

6) *Sociogram*: While not a part of the statistical analyses at this point, this measure examines the dynamics of the peer culture in the classroom. It describes the actual number of students who said they like to play or work with, which students play alone at recess, which kids tease the most, get teased the most, etc.

Results

Consistent with results reported for the Middle School measures (Doll, Zucker, Brehm, 1999a), the means and standard deviations of the Elementary probes in Table 1 show good dispersion of scores for Academic Efficacy and Self-Determination, and adequate dispersion of scores for Student-Teacher, Home-School, and Peer Relationships.

Alpha coefficients for each probe fall above .80 with the exception of Home-School Relationships, representing excellent internal consistency.

Table 1: Internal consistency of the *ClassMaps* probes

(Data Collected Sept. 99 – March 00)

Element	Probe	Mean	Standard Deviation	Alpha
Student-Teacher Relationships	My Teachers (8 Items)	10.8	2.9.	**.84**
Home-School Relationships	Talk About School (7 items)	12.1	3.3	**.59**
Peer Relationships	Today at Recess (7 items)	11.6	2.2	**.84**
Academic Efficacy	Things I Believe (6 items)	17.2	7.4	**.90**
Self-Determination	Things I Do (5 items)	16.1	5.9	**.87**

Construct Validity.

The factor analysis of the 33 ClassMaps scale items is included in Table 2. Results show that these items, for the most part, factor neatly into the discrete ClassMaps elements that are assessed through the elementary surveys. Factor 1 represents Self-Determination, Factor 2 represents Student-Teacher Relationships, Factor 3 represents Academic Efficacy, and Factor 4 represents Home School Relationships. Factors 5 and 6 represent Peer Relationships and indicates a split of the measure into items assessing Inclusive Peer Relations (Factor 5: Played with friends/played alone; Friends let me join/did not let me; Made friends/Lost friends) and those Peer Relationship items which address primarily Peer Conflicts (Factor 6: I fought/I didn't fight; Arguments/no arguments; Was made fun of/ was not). Earlier research by Doll & Murphy (1996) suggested that this split in the Peer Relationships measure was not observed at the elementary level, but rather was a phenomenon that emerged at the Middle School level.

These results on 3rd through 5th graders would suggest this phenomenon may occur somewhat earlier than previously observed. Factor 7 suggests a Homework Factor, as it represents a sub-component of Home-School Connection, which deals directly with whether or not students take homework home on a daily level and whether they receive help from their parents with it.

Table 2: Factor loadings of the elementary *ClassMaps* probe items[2](N=178)

Item and Scale	Factors I	II	III	IV	V	VI	VII
Student-Teacher Relationship (My Teacher)							
I like going to Arrowhead		**.555**		.381			
My teachers listen to me		**.777**					
My teachers understand me		**.710**					
My teachers help me		**.618**					
My teachers are nice to me		**.764**					
Teachers think I do good work		**.651**					
I like my class		**.604**					
Home-School Relationship (Talk About School)							
Talk to parents re: seatwork /grades				.569			
Talk to parents about teachers				.501			
Ask parents for HW help				.562			
Talk to parents about good things				**.693**			
Talk to parents about problems			.315	**.379**			
Always take homework home							.652
Parents help with homework				**.436**			.473
Peer Relationships (Today At Recess)							
Recess was great/bad					.442	.325	
Played w friends/played alone					.767		
Arguments/no arguments						**.750**	
Friends let me join/did not let me					**.771**		
Was made fun of/ was not						**.729**	
I fought/I didn't fight						**.629**	.314
Made friends/Lost friends					**.587**		
Academic Efficacy (Things I Believe)							
Math			**.350**				
Reading	.335		**.705**				
Writing			**.684**				
Science/Soc. Studies			**.683**				
Spelling	.329		**.691**				
Self-Determination (Things I Do)							
Math	**.715**						
Reading	**.842**						
Writing	**.809**						
Science/Soc. Studies	**.773**						
Spelling	**.843**						

[2] **Only loadings greater than .3 are reported**

Table 3 describes correlations among the five elementary *ClassMaps* total probe scores. Results show that the strongest correlations between Academic Efficacy and Self-Determination and between Student-Teacher and Home-School Relationships.

Table 3: Inter-correlations among elementary *ClassMaps* probes – Fall 99 (N=178)

	Student-Teacher Relations	Home School Relations	Peer Relations	Academic Efficacy	Self-Determination
Student-Teacher Relations	1.00				
Home School Relations	.385**	1.00			
Peer Relations	.200**	.160	1.00		
Academic Efficacy	.090	.070	.118	1.00	
Self-Determination	.150	.064	.164*	.532**	1.00

***p < 0.05; ** p < 0.01**

Table 4 describes a factor analysis of the five elementary *ClassMaps* total scores. Results divide cleanly into two factors: Factor 1 represents the elements of relationships including student-teacher, home-school, and peer relationships. Factor 2 represents elements of the self-system, including academic-efficacy and self-determination.

Table 4: Factor loadings of the elementary *ClassMaps* probe totals[3]

ClassMaps Elements	Factors	
	Relationships	Self-System
Student-Teacher Relationships	**.809**	
Home-School Relationships	**.736**	
Peer Relationships	**.605**	
Academic Efficacy		**.875**
Self-Determination		**.868**

Overall, the results of the elementary downward extension appear promising in their consistency with those reported for the larger sample of Middle School aged students (Doll, Zucker, Brehm, 1999a). The challenge that remains is the appropriate format and administration of these probes to students in Kindergarten through 2nd grade.

The Consultation Process

ClassMaps collaborative consultation focuses on planning interventions to enhance the classroom context in light of the results of the *ClassMaps* probes. Collaboration is a style of interaction between coequal partners who voluntarily engage in shared decision making as they work toward a common goal (Friend & Cook, 1996). Consultation has been defined as "a voluntary, nonsupervisory relationship between professionals from differing fields designed to aid professional functioning" (Conoley & Conoley, 1992, p.1). In a way, collaboration may be thought of as the way coequals relate, and consultation the process through which the relating occurs. Marks (1995) expressed the consensus of many writers that the steps of the consultation process occur in the following sequence: entry (including contract building and sanction), problem definition, problem analysis using data collection, goal setting, implementation, evaluation, and institutionalization. The remaining portion of this paper will describe the process of collaborative consultation within the *ClassMaps* model and some of the results of that process.

One of the first Entry-related goals was to familiarize teachers, other building personnel, and students with the *ClassMaps* consultants, and to facilitate the consultants themselves feeling part of the culture of their school. This goal was accomplished in two ways. First, the consultants observed and participated in classrooms. Then, they completed surveys asking for ratings of their observations and rationales for those ratings. For

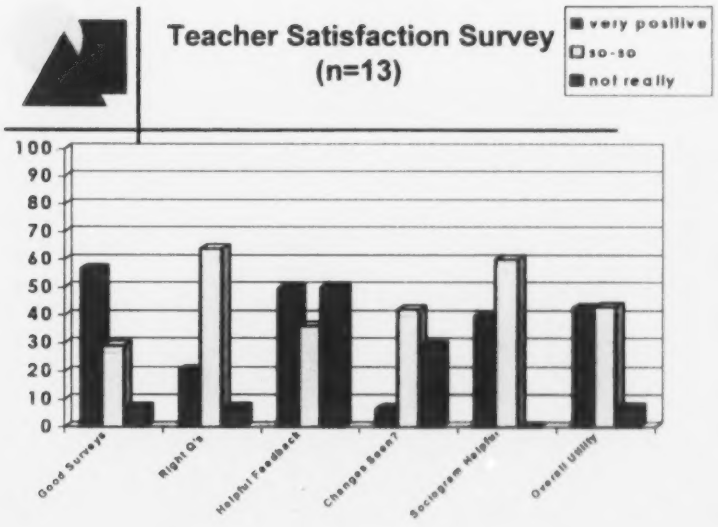
example, the Student-Teacher Observation Survey asked for a rating along a continuum from "hardly ever" to "all the time" of the degree to which students appeared to recognize the teacher's empathetic and understanding responses (verbal or nonverbal) toward them. Rating a teacher on this dimension was designed to prepare *ClassMaps* consultants to be able to talk with teachers in the Problem Definition stage about their concerns in this area, as well as to later help with understanding the results of the Student-Teacher probe. Other observation surveys related to the Home-School probe and a Self-Control probe that was in the process of being developed for an elementary school population were completed and discussed in team meetings. The consultants felt that doing these observations gave them a chance to "hang out" in a purposeful way in classrooms and to begin to build credibility. Along with the Observation Surveys, consultants met to discuss specific entry-related issues and strategies taken from the consultation literature (for example, Conoley & Conoley, 1992), such as skills and talents they brought to the consultation process and the needs, stresses and satisfactions they saw in teachers and students.

At the Problem Definition stage, consultants met as a team with individual teachers who had expressed a desire to be part of the project. The teachers were already familiar with the probes and what they measured, and so *ClassMaps* consultants helped them to express their concerns in questions that the probes might be able to answer. After teachers and consultants met at this and subsequent stages, the consultants completed a Structured Consultant Log patterned after Conoley and Conoley (1982). This log asked for consultants to indicate which specific consultation processes, such as communication skills and problem definition strategies, they employed in the meeting and how they were assessing progress. Results from these surveys, completed at different

points throughout the entire process from problem definition through intervention implementation and evaluation, indicate that a variety of specific skills and techniques were used at each point, suggesting that the *ClassMaps* consultation process is a rather directive one. Fuchs et al. (Fuch, Fuchs, Bahr, Fernstrom, & Stecker, 1990) used a directive or "prescriptive" approach to consultation in which consultants offered comprehensive assistance with defining problems and implementing and evaluating interventions for students with problems of motivation, inattention, and academic performance. They found that this approach produced greater improvements in students' problem behaviors than did a less comprehensive approach involving problem definition and analysis alone. Earlier, Erchul (1987) concluded that consultants who actively influence the direction of the consultation session with process-oriented questions are viewed more favorably by teacher consultees, and that these consultees are also more likely to follow through with the plans developed in the session.

Below are the results of a Teacher Satisfaction Survey administered in March, 2000. When interpreting these results, it should be taken into consideration that the consultants had received only minimal training in consultation processes and that some of the interventions were still being implemented. Nevertheless, teachers appear to be moderately satisfied with the process, suggesting that a prescriptive approach to consultation is useful in schools where "stress is high, expertise in consultation is low, and consultation time is nonexistent (Fuchs et al., 1990, p. 511). Unfortunately, this quote describes the situation in all too many of today's schools.

The Problem



Analysis/ Data Collection stage was accomplished collaboratively. Either *ClassMaps* consultants administered the probes or teachers did it themselves. Consultants then analyzed the results and summarized them in graphs. For the Goal Setting stage, teachers and consultants met jointly to discuss the meaning of the graphs and to plan interventions. Questions such as "Is this what you expected to see?", "How would you like it to look?", and "What changes would you like to make?" guided this discussion. Consultants also asked themselves questions such as "Is this something the teacher can do something about?" and efforts were made not to micromanage the feedback by limiting the data presentation to the 2-3 most apparent notions. In an innovative attempt to extend the consultation model itself, the data were often shared with the students in their classrooms to obtain their reactions and ideas for interventions. These classroom sessions covered one measure at a time in a 10-15 minute time period. Simple, attractive posters presenting the essential information were created, and the students' responses were written directly onto the poster to increase their awareness of being heard and understood.

Implementation appeared to occur at different levels which we have characterized as Awareness, Awareness + Consultation, and Awareness + Consultation + Intervention.

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One teacher decided that, while the probes gave her valuable information about the social-emotional climate of her classroom, no substantial intervention was needed. She did ask, however, that students identified by the Sociogram as having few friends or negative peer interactions be included in a friendship group as a prevention strategy. Thus, Awareness alone seemed to be sufficient for this teacher, who was a 30- year veteran. The probes were recently re-administered to her students and the data show small, positive changes, affirming her sense that her students are developing in the desired direction. After receiving feedback on her graphs, a first year teacher requested consultation for herself to improve her classroom management skills. She felt that her students were having trouble settling down at the beginning of the year, but believed that having other adults in the classroom doing interventions would interfere with her establishing her authority. The *ClassMaps* team honored her request and merely gave her ideas and feedback based on their observations of her classroom up to that point, exemplifying the Awareness + Consultation level. The Awareness + Consultation + Intervention level is being followed in a classroom in which the teacher is receiving weekly consultation concerning the progress of a classroom-wide intervention to improve academic engagement and interpersonal relationships among students. The classroom has been divided into teams who earn points toward rewards shared by the specific team and the class as a whole. The Teacher Satisfaction Survey completed by this teacher indicates that she is pleased with the consultative support she has received and with the overall changes that have occurred in the classroom, even though specific students continue to cause concern and are the focus of individual interventions, such as counseling.

This discussion of the *ClassMaps* consultation process highlights an important aspect of school mental health planning and intervention: resource utilization. Although the *ClassMaps* process requires a much time up-front to administer the graphs and prepare the data presentation, much is gained in time and efficiency by identifying and targeting the problems most amenable to change with interventions that carry the greatest impact using available resources. For example, teachers can relax and continue to teach with confidence at the Awareness level, their own mental health having perhaps been improved by affirming class profiles. Other teachers who only need to know the nature of the problems and some strategies to try can receive the correct "dose" at the Awareness + Consultation level without tying up scarce resources with over-intervention. As a result, there are resources remaining for teachers who have unusually challenging classrooms needing ongoing Consultation + Intervention. Thus, consultation is embedded in the *ClassMaps* model development and implementation process from start to finish.

Summary and Directions for the Future

Data related to the downward extension of the ClassMaps probes to the elementary school level adds further convincing evidence of their internal consistency reliability despite their brevity. Moreover, the fact that the probe items continue to factor into the five primary elements is encouraging evidence of these elements' differentiation. The additional finding of splitting within the Peer Relationships factor and the Home-School Relationships factor provides an opportunity for further investigation and theory development for an elementary-age population. Similarly, evidence suggests that the ClassMaps consultation model is useful and can be applied flexibly with teachers who are attempting to solve real problems of practice that occur within their school. In fact, some teachers are talking about creating ClassMaps-like measures to probe their own

questions. It is apparent that the process can begin at any point and that the probes can be done in any combination at any time to meet the needs of the teacher and classroom.

The work ahead will take several paths. First, the probes, and perhaps the administration process itself, needs to be revised for use in kindergarten through 2nd grade to take into account developmental differences in ability to self-report about internal processes and remote feelings and events. There are also probably developmental differences in the forms that self-efficacy and self-determination in particular take in these age groups that may need to be addressed with different questions.

Another path will involve developing the statistical model underlying the probes through causal modeling using path analysis and confirmatory factor analysis. We hope to be able to link the probes across developmental levels and to determine if individual items perform the same way for age and gender. A critical question to be answered concerns the ability of the constructs we are measuring, as well as the probes themselves, to explain achievement and other educational outcomes such as graduation rates. Some problems to be overcome related to this involve restriction of range and distribution skewness associated with grades. It is not clear, however, whether Standards Based Education outcome data will be any more reliable. In addition, if we can remove the variance in any measures of achievement that is associated with verbal ability and socioeconomic status, our data may help to explain the variance that remains.

Finally, we hope to introduce the ClassMaps model to a broader range of school districts, including rural districts. Data are now being gathered in an elementary school in a large urban district. The consultation model needs research to see how it compares with existing models in terms of process, the level of training and type of personnel needed to accomplish it successfully (can paraprofessionals consult?), and the role it

plays in insuring the academic and social success of fully included students with disabilities in general education classrooms.

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